

REMARKS

The Official Action mailed November 15, 2007, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Filed concurrently herewith is a *Request for Continued Examination*. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on January 14, 2004; May 11, 2004; February 24, 2005; and September 25, 2006.

However, the Applicant has not received acknowledgment of the Information Disclosure Statement filed on August 22, 2007 (received by OIPE August 24, 2007). The above-referenced Information Disclosure Statement appears in the Image File Wrapper. The Applicant respectfully requests that the Examiner provide an initialed copy of the Form PTO-1449 evidencing consideration of the above-referenced Information Disclosure Statement.

Claims 1-20 and 46-59 were pending in the present application, of which claims 1-4 are independent. Claims 1-4 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The Official Action rejects claims 1-4, 7, 9, 11, 13, and 46-59 as obvious based on the combination of U.S. Publication No. 2002/0085143 to Kim; U.S. Patent No. 5,298,768 to Okazaki; U.S. Publication No. 2001/0040645 to Yamazaki; and U.S. Publication No. 2001/0012089 to Shiraishi. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary

skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1-4 have been amended to recite an insulating film adhered to the resin with an adhesive. The Applicant respectfully submits that Kim, Okazaki, Yamazaki '645 and Shiraishi, either alone or in combination, do not teach or suggest the above-referenced features of the present invention. Since Kim, Okazaki, Yamazaki '645 and Shiraishi do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Furthermore, there is no proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Kim, Okazaki, Yamazaki '645 and Shiraishi or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be modified in the manner

asserted in the Official Action, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

One of the features of the present invention is a structure in which a first substrate including a light emitting element and a semiconductor device such as a switching element in the pixel portion are formed separately, and the first substrate and the semiconductor device are adhered to each other with an adhesive. Consequently, since a substrate between the light emitting element (a backlight unit) and the semiconductor device for the liquid crystal cell is not necessary, the liquid crystal display apparatus can be formed to be thin and reduced in weight.

On the other hand, Kim's device is formed so that an organic light emitting element as a backlight is first formed over one side of a substrate 201a, then a thin film transistor 208 is formed over the other side of the substrate 201a. That is, in Kim, there is no need to attach the organic light emitting element to the substrate, since the organic light emitting element is formed on the substrate. Therefore, the substrate 201a is positioned between the organic light emitting element and the thin film transistor 208. Additionally, since the organic light emitting element and the thin film transistor 208 are formed directly over the substrate 201a, it appears that adhesive is not necessary to form Kim's device.

In the "Response to Arguments" section, the Official Action asserts that Okazaki discloses "a LED with a resin formed above it in the concave substrate to show another example of a well known backlight positioned under the liquid crystal," and that Yamazaki '645 shows "what an adhesive is used for" (page 9, Paper No. 20071102). Further, the Official Action asserts that "[it] would be obvious to use Yamazaki's adhesive to attach the backlight to the display" (*Id.*). The Applicant respectfully disagrees and traverses the assertions in the Official Action.

The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit (KSR International Co. v. Teleflex Inc., 550 U.S. ___, 82 USPQ2d 1385). The Court quoting In re Kahn (441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)) stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." KSR, 550 U.S. at ___, 82 USPQ2d at 1396. In the present application, the Official Action appears to contain mere conclusory statements, for example, at page 9, lines 17-20 (Paper No. 20071102), and the Official Action has not set forth articulated reasoning with some rational underpinning to support the assertion of *prima facie* obviousness.

In any event, although Yamazaki '645 discloses that a color filter 57 is adhered to a display device, it appears that Yamazaki '645 does not disclose that a thin film transistor is adhered to a backlight with an adhesive. Also, it appears that Kim, Okazaki and Shiraishi do not disclose that a thin film transistor is adhered to a backlight with an adhesive. Kim discloses that an organic light emitting element and a thin film transistor 208 are directly formed over a substrate 201a.

The Official Action has not demonstrated a *prima facie* case as to how the prior art necessarily teaches or suggests that Kim's fundamental structure should have been modified. For example, if Okazaki were combined with Kim, then one might have formed Okazaki's LED directly over the substrate 201a. However, the Applicant

respectfully submits that the Official Action does not show a sufficient reason why it would have been obvious to modify Kim by separately forming the backlight unit and the semiconductor device for the liquid crystal cell and then further modify Kim by adhering the backlight unit and the semiconductor device to each other with an adhesive.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Kim, Okazaki, Yamazaki '645 and Shiraishi or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

The Official Action rejects dependent claims 5, 6, 8, 10, 12 and 14-20 as obvious based on the combination of Kim, Okazaki, Yamazaki '645, Shiraishi and one of the following: U.S. Patent No. 4,648,691 to Oguchi, U.S. Patent Application Publication No. 2002/0041348 to Yokoyama, U.S. Patent Application Publication No. 2002/0130985 to Weindorf, U.S. Patent No. 6,331,381 to Chaudhari, U.S. Patent No. 5,781,263 to Kawagoe, U.S. Patent No. 4,202,607 to Washizuka and U.S. Patent No. 4,536,014 to Boutaleb.

Oguchi, Yokoyama, Weindorf, Chaudhari, Kawagoe, Washizuka and Boutaleb do not cure the deficiencies in Kim, Okazaki, Yamazaki '645 and Shiraishi or the alleged motivation to combine these references. The Official Action relies on Oguchi, Yokoyama, Weindorf, Chaudhari, Kawagoe, Washizuka and Boutaleb to allegedly teach

the features of dependent claims 5, 6, 8, 10, 12 and 14-20. However, Kim, Okazaki, Yamazaki '645, Shiraishi, Oguchi, Yokoyama, Weindorf, Chaudhari, Kawagoe, Washizuka and Boutaleb, either alone or in combination, do not teach or suggest the following features or that Kim, Okazaki, Yamazaki '645 and Shiraishi should be modified to include any of the following features: an insulating film adhered to the resin with an adhesive. Also, Oguchi, Yokoyama, Weindorf, Chaudhari, Kawagoe, Washizuka and Boutaleb do not show why it would have been obvious to combine Kim, Okazaki, Yamazaki '645 and Shiraishi in light of the arguments presented at pages 10-12 supra.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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